

SEQUENCE LISTING

<110> Dehesh, Katayoon

<120> NUCLEIC ACID SEQUENCES ENCODING BETA KETOACYL-ACP SYNTHASE AND USES THEREOF

<130> MTC 6796

<150> US 60/220,702

<151> 2000-07-25

<160> 6

<170> PatentIn version 3.0

```
<210> 1
<211> 1275
<212> DNA
<213> Synechocystis sp.
```

<400> 1
ggatccgcat gcatggcaaa tttggaaaag aaacgtgttgc ttgttaacggg attgggagcc 60
atcaccccca tcggtaatac tctccaagac tattggcaag gcttaatggc gggtcgtaac 120
ggcattggcc ccattacccg tttcgatgct agtgaccaag cctgccgtt tggaggggaa 180
gtaaaggatt ttgatgctac ccagtttctt gaccgcaaaag aagctaaacg gatggaccgg 240
ttttgccatt ttgctgtttt tgccagtcaa caggcaattha acgatgctaa gttgggtgatt 300
aacgaactca atgcccgtatga aatcggggta ttgattggca cggcattgg tggttgaaa 360
gtactggaag atcaacaaac cattctgttgc gataagggtc ctagccgttgc cagtccttt 420
atgatcccga tggatgtatgc caacatggcc tctgggttaa cggccatcaa cttaggggccc 480
aagggtccca ataactgtac ggtgacggcc tggcgccgg gttccatgc cattggagat 540
gcgtttcggtt tggtgcaaaa tggctatgct aaggcaatga tttgcgggtgg cacggaaagcg 600
gccattaccc cgctgagcta tgcagggttt gcttcggccccc gggctttatc tttccgcaat 660
gatgatcccc tcacatgccag tcgtcccttc gataaggacc gggatggttt tggatgggg 720
gaaggatcggtt gcattttgat cctagaagaa ttggaatccg cttggcccg gggagcaaaa 780
atttatgggg aatgggtggg ctatgccatg acctgtatgc cctatcacat taccggccca 840
gtgcccggatg gtcggggagc caccaggcg atcgccctggg ccttaaaaga cagcggattg 900
aaaccggaaa tggtcagttt catcaatgccatg catggatccca gcacccctgc taacgtatgt 960
acggaaaccc gtgccattaa acaggcggttgc ggaaatcatg cctacaatat tgcgggttagt 1020
tctactaagt ctatgaccgg tcacttgcgttgc ggcggctccg gaggtatcga agcgggtggcc 1080
accgtaatgg cgatcgccga agataaggta ccccccacca ttaatttgaa gaaccccgac 1140
cctgaggtgttgc atttggattttatgc tggccggggcagagtcggg ctttaatagt ggatgtatgc 1200

ctatccaaact cctttggttt tggtggccat aacgtcacct tagcttcaa	aaaatatcaa	1260
tagaagcttg gatcc		1275
<210> 2		
<211> 416		
<212> PRT		
<213> Synechocystis sp.		
<400> 2		
Met Ala Asn Leu Glu Lys Lys Arg Val Val Val Thr Gly Leu Gly Ala		
1 5 10 15		
Ile Thr Pro Ile Gly Asn Thr Leu Gln Asp Tyr Trp Gln Gly Leu Met		
20 25 30		
Glu Gly Arg Asn Gly Ile Gly Pro Ile Thr Arg Phe Asp Ala Ser Asp		
35 40 45		
Gln Ala Cys Arg Phe Gly Gly Glu Val Lys Asp Phe Asp Ala Thr Gln		
50 55 60		
Phe Leu Asp Arg Lys Glu Ala Lys Arg Met Asp Arg Phe Cys His Phe		
65 70 75 80		
Ala Val Cys Ala Ser Gln Gln Ala Ile Asn Asp Ala Lys Leu Val Ile		
85 90 95		
Asn Glu Leu Asn Ala Asp Glu Ile Gly Val Leu Ile Gly Thr Gly Ile		
100 105 110		
Gly Gly Leu Lys Val Leu Glu Asp Gln Gln Thr Ile Leu Leu Asp Lys		
115 120 125		
Gly Pro Ser Arg Cys Ser Pro Phe Met Ile Pro Met Met Ile Ala Asn		
130 135 140		
Met Ala Ser Gly Leu Thr Ala Ile Asn Leu Gly Ala Lys Gly Pro Asn		
145 150 155 160		
Asn Cys Thr Val Thr Ala Cys Ala Ala Gly Ser Asn Ala Ile Gly Asp		
165 170 175		
Ala Phe Arg Leu Val Gln Asn Gly Tyr Ala Lys Ala Met Ile Cys Gly		
180 185 190		
Gly Thr Glu Ala Ala Ile Thr Pro Leu Ser Tyr Ala Gly Phe Ala Ser		
195 200 205		
Ala Arg Ala Leu Ser Phe Arg Asn Asp Asp Pro Leu His Ala Ser Arg		
210 215 220		
Pro Phe Asp Lys Asp Arg Asp Gly Phe Val Met Gly Glu Gly Ser Gly		
225 230 235 240		
Ile Leu Ile Leu Glu Glu Leu Glu Ser Ala Leu Ala Arg Gly Ala Lys		
245 250 255		

Ile Tyr Gly Glu Met Val Gly Tyr Ala Met Thr Cys Asp Ala Tyr His
260 265 270

Ile Thr Ala Pro Val Pro Asp Gly Arg Gly Ala Thr Arg Ala Ile Ala
275 280 285

Trp Ala Leu Lys Asp Ser Gly Leu Lys Pro Glu Met Val Ser Tyr Ile
290 295 300

Asn Ala His Gly Thr Ser Thr Pro Ala Asn Asp Val Thr Glu Thr Arg
305 310 315 320

Ala Ile Lys Gln Ala Leu Gly Asn His Ala Tyr Asn Ile Ala Val Ser
325 330 335

Ser Thr Lys Ser Met Thr Gly His Leu Leu Gly Gly Ser Gly Gly Ile
340 345 350

Glu Ala Val Ala Thr Val Met Ala Ile Ala Glu Asp Lys Val Pro Pro
355 360 365

Thr Ile Asn Leu Glu Asn Pro Asp Pro Glu Cys Asp Leu Asp Tyr Val
370 375 380

Pro Gly Gln Ser Arg Ala Leu Ile Val Asp Val Ala Leu Ser Asn Ser
385 390 395 400

Phe Gly Phe Gly Gly His Asn Val Thr Leu Ala Phe Lys Lys Tyr Gln
405 410 415

<210> 3

<211> 45

<212> DNA

<213> Synechocystis sp.

<400> 3

ggatccgcat gcatggcaaa tttggaaaag aaacgtgttg ttgta 45

<210> 4

<211> 38

<212> DNA

<213> Synechocystis sp.

<400> 4

ggatccaagc ttctattat atttttgaa agctaagg 38

<210> 5

<211> 33

<212> DNA

<213> Cuphea hookeriana

<400> 5

ctgagatctg tcgacatggc gaccgcttct cgc 33

<210> 6

<211> 30

<212> DNA

<213> Cuphea hookeriana

<400> 6
gacagatctt gtggagactt cctgtgcagg

30